

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-8. (canceled)

9. (new) A microdialysis probe, comprising:

the first tube extending from a proximal end of the probe to a distal end of the probe;

a membrane (115) inserted over an exterior surface of the first tube;

a distal end piece (110) comprising

a distal end portion of the first tube (116),

a distal end portion of the membrane (115) inserted over an exterior surface of the first tube and extending beyond the distal end of the first tube,

a position indicating object (130) inserted into the distal end of the first tube and sealing the distal end portion of the first tube and the distal end portion of the membrane, and

a space (118) defined by and located between an exterior of the first tube and an interior surface of the membrane;

a proximal tubular fitting (111) attached to the distal end piece (110),

a proximal end of the membrane being fastened to the proximal tubular fitting (111);

a proximal end piece (113) permanently fastened to the proximal tubular fitting;

two further tubes (107, 108) located in the proximal end piece and forming an inlet and an outlet from the probe to let a perfusion liquid pass through the probe;

an aperture (117) through a wall portion of the first tube and located adjacent the distal end of the first tube and providing a passage for the perfusion liquid to enter the space (118), wherein,

the position indicating object allows non-invasive location of the distal part of the probe when inserted in patient tissue.

10. (new) The probe of claim 9, wherein the position indicating object is a plug comprising a glue that seals in the distal end of the first tube and the distal end part of the membrane.

11. (new) The probe of claim 10, wherein the membrane is tubular and semi-permeable material.

12. (new) The probe of claim 9, wherein the distal end piece is permanently fastened to the distal end of the first tube.

13. (new) The probe of claim 9, wherein,  
a length of the probe is 5 cm,  
a length of the proximal tubular fitting is 2 cm,  
a length of the membrane is 3 cm,  
a diameter of the proximal tubular fitting is 1 mm, and  
an outer diameter of the membrane is 0.6 mm, the dimension being approximate.

14. (new) The probe of claim 10, wherein the plug is made of gold.

15. (new) The probe of claim 9, wherein the position indicating object is visible to X-rays.

16. (new) The probe of claim 9, wherein the position indicating object permits the distal end of the probe to be visible, during examination, using Nuclear Magnetic Resonance.

17. (new) The probe of claim 9, wherein the position indicating object is a hollow plug filled with air, the plug being identifiable using Nuclear Magnetic Resonance.

18. (new) The probe of claim 9, wherein,  
the distal end portion of the first tube (116) has a corbelled end with a widened interior diameter as compared to an interior diameter of a proximal end of the first tube, and  
the position indicating object sealingly extends into the corbelled end.

19. (new) A microdialysis probe, comprising:  
a distal end piece (410);  
a distal tubular fitting (412) attached around the distal end piece, the distal tubular fitting and the distal end piece forming a foremost tip of a first distal end of the probe;  
a proximal end piece (413) forming a second proximal end of the probe;  
a proximal tubular fitting (411) attached to the proximal end piece at the proximal end;  
a membrane (415) fit, at a first end, to the proximal tubular fitting (411), and fastened, at a second end, to the distal end piece (410), an outside diameter of the membrane being less than an outside diameter of the distal end piece (410);  
a first tube (416) extending, through the proximal tubular fitting, from the proximal end piece (413) to the distal end piece (41), the first tube being closed at a distal end;

a space (418) defined by and located between an exterior of the first tube and an interior surface of the membrane;

a second tube (419) extending from the proximal end of the probe to the space and serving as an exit for the perfusion liquid;

two further tubes (407, 408) located in the proximal end piece and forming an inlet and an outlet from the probe to let a perfusion liquid pass through the probe;

an aperture (417) through a wall portion of the first tube and located adjacent the distal end of the first tube and providing a passage for the perfusion liquid to enter the space (418), wherein,

the distal end piece (410) is a position indicating object allowing non-invasive location of the distal part of the probe when inserted in patient tissue.

20. (new) The probe of claim 19, wherein distal end piece is a half-sphere of a material opaque to X-rays.

21. (new) The probe of claim 19, wherein the position indicating object is a plug comprising a glue that seals in the distal end of the first tube and the distal end part of the membrane.

22. (new) The probe of claim 19, wherein the membrane is tubular and semi-permeable material.

23. (new) The probe of claim 19, wherein the distal end piece is permanently fastened to the distal end of the first tube.

24. (new) The probe of claim 21, wherein the plug is made of gold.

25. (new) The probe of claim 19, wherein the position indicating object is visible to X-rays.

26. (new) The probe of claim 19, wherein the position indicating object permits the distal end of the probe to be visible, during examination, using Nuclear Magnetic Resonance.

27. (new) The probe of claim 19, wherein the position indicating object is a hollow plug filled with air, the plug being identifiable using Nuclear Magnetic Resonance.

28. (new) A microdialysis probe, comprising:  
the interior first tube extending from a proximal end of the probe to a distal end of the probe, the first tube being closed at the distal end of the probe;

a membrane;

a distal end piece comprising

a distal end portion of the first tube,

a position indicating object,

a first portion of the membrane coextensive with the first tube and extending beyond the distal end of the first tube,

a part of the membrane extending beyond the distal end of the first tube being attached to the position indicating object, and

a space located between an exterior of the first tube and an interior surface of the membrane;

a proximal tubular fitting attached to the distal end piece,

a proximal end of the membrane being fastened to the proximal tubular fitting;

a proximal end piece fastened to the proximal tubular fitting;

two further tubes located in the proximal end piece and forming an inlet and an outlet from the probe to let a perfusion liquid pass through the probe;

an aperture located adjacent the distal end of the first tube and providing a passage for the perfusion liquid to enter the space, wherein,

the position indicating object allows non-invasive location of the distal part of the probe when inserted in patient tissue.